



TECHNICAL DATA SHEET AETERIO

- ⇒ Environmental protective photocatalytic coating for the most effective air cleaning and for long-term clean facades, walls, noise barriers, bridges and other surfaces.
- ⇒ Provides effective UV protection and cools surfaces.
- ⇒ Use for large areas to reduce harmful substances and improve the environment in exposed areas.
- ⇒ The surface created uses photocatalysis to ensure active self-cleaning of the surface from dirt and protects it against the deposition of microorganisms.
- ⇒ Guarantee of functionality on vertical surfaces – 6 years ^[1]



PRODUCT DESCRIPTION: ECO-TECHNOLOGY FOR CLEANING AIR FROM IMMISSIONS AND GREENHOUSE GASES: The functional surface created by AETERIO coating effectively, long-term and at extremely low costs cleans the air from a wide range of pollutants that are dispersed in the air (immissions). Coated area of 1,000 m² removes hundreds of kilograms of nitrogen oxides (NO_x), other greenhouse gases and fine suspended dust particles containing toxic and carcinogenic substances of an organic nature from the air per year. This technology enables construction investors, developers and designers to effectively compensate for the negative impacts of constructions on the environment. By painting larger areas of noise barriers, walls, facades and surfaces of traffic structures with AETERIO coating, it is possible to compensate for the ecological footprint of the operation of thousands of cars with internal combustion engines.

FOTOKATALÝZA ZAJIŠŤUJE:

- Ecological solution without chemistry, purely physical effect
- Maximum UV protection – prevents material degradation
- Effective self-cleaning protection
- Air purification from harmful substances generated during combustion (automobile transport, industry, solid fuels)
- High effectiveness against molds, fungi, algae and other microorganisms

**THE PHOTOCATALYTIC EFFECT IS PERMANENT, INEXHAUSTIBLE AND DOES NOT DIMINISH OVER TIME.
ALL PROTECTIVE FUNCTIONS ARE MAINTAINED THROUGHOUT THE LIFE OF THE COATING.**

APPEARANCE OF THE COATING: The coating is semi-transparent with white color and its surface is slightly chalky. Transparency approx. 50 %. It is suitable for all porous surfaces where we want to achieve a beautiful and clean appearance for as long as possible, without it being attacked by algae, mold, fungi and other microorganisms. The thickness of the coating layer is optimally 5-30 microns. The layer is active immediately after the impact of daylight. The coating is cured after 24 hours.

COMPOSITION: Purely water-based composite coating. It contains an untreated photocatalyst and inorganic binders. It contains high concentrations of photocatalyst (75-100 g/l), which ensures its long-term flawless protective function and a particularly high self-cleaning efficiency.


METHOD OF APPLICATION: Before each application, the coating must be shaken very thoroughly (30 - 40 seconds) in the original container. Perfect shaking is necessary to achieve even mixing of the insoluble particles in the coating. This is crucial to ensure the proper function of the protective coating. Before applying the FN NANO® technology, the substrate must be perfectly cured. It is important that the coating is always in motion and does not sediment. To achieve a nice appearance, always apply as thin but continuous and even a coat as possible, allowing it to dry completely before the next layer.


COMMON APPLICATION PROCEDURE: It is recommended to first gently wash substrates that are contaminated or infected with microorganisms with water and use a deep penetrating coating (sealant). After drying, it is possible to apply a facade paint or plaster (silicate or acrylic), which does not repel water. After thorough drying of the façade paint, it is possible to apply AETERIO functional coating. A detailed procedure for the application of FN NANO® functional coatings is published on the website in the section FN NANO® Technology/Hints and Tutorials. (www.fn-nano.com)


SYSTEM APPLICATION PROCEDURE FOR VERTICAL SURFACES:

1. First, impregnate (seal) with FN® Primer according to the instructions for use given in the relevant technical data sheet. ^[2]
2. After the impregnating coating has dried, apply two coats of FN® PAINT facade paint or plaster in accordance with the instructions for use in the technical data sheet. ^[2]
3. After perfect drying and curing of the FN® PAINT or plaster, apply the functional coating AETERIO in three even layers.



 **Spraying** – three layers. Pneumatic spraying or high-pressure airless spraying can be used; for less absorbent surfaces, we recommend applying a third coat.

 **Roller** – evenly in three coats is suitable for practically all surfaces. Even application requires some skill.

 **Brush application** – in three coats, it is suitable for hard-to-reach areas, deeper diffusion of the active substance and for treating areas that may be affected by mold, for example.

- Cover all surfaces that will not be treated with AETERIO layer
- The layer must be allowed to dry between coats
- Do not apply in adverse weather conditions.
- Air and substrate temperature between + 10 °C and + 25 °C and relative air humidity maximum 75%.
- **Do not apply on a water-repellent (hydrophobic) surface.**

Dilution: Don't dilute!

Consumption: Typically, 1 liter = 10 m² of protective surface in three coats. Depending on the structure, absorbency of the surface and the method of application, an average of 7-10 m² of coated surface from one liter (in 3 layers).

Cleaning tools: With water – as soon as possible after use.

PRODUCT FEATURES:

Low viscosity liquid, product density: 1.075 g/cm³, without volatile organic compounds (VOC).
 High vapor permeability of the coating (class V1- High), S_d[m] = 0,06.
 The thickness of the film is optimally 5-30 micrometers.
 It does not contain any organic compounds (ISO 16000-10, ISO 16000-11). The applied coating is completely safe.
 The coating is frost-resistant after maturing, it is not washable.
 Adhesion to concrete ≥ 2,5 MPa (ČSN EN 1542: 2000)
 Non-flammable liquid in the sense of ČSN 65 0201

PACKAGING: Plastic containers 1 and 5 liters

STORAGE: Maximum 3 years from date of manufacture at 10-25 °C, in unopened original packaging. Before use, the mixture must be mixed very thoroughly by shaking in the original packaging. **Must not freeze!**

SECURITY MEASURES AND ECOLOGY: The coating does not contain any organic compounds in accordance with European and world trends in environmental and health protection. The applied coating is inert and completely safe. It does not release any harmful substances into the environment. More detailed information can be found on the packaging and in the Safety Data Sheet of the product – available on request.

More information:

The information provided in this technical sheet is compiled on the basis of laboratory knowledge and our professional experience in order to achieve the best possible results at a professional level when using the product. Depending on the homogeneity and contamination of the substrate, optical defects may occur in the final coating. We do not accept any liability for damage caused by incorrect use of the product or its improper selection. Therefore, we recommend professionally and correctly testing our materials to see if they are suitable for the intended purpose of use under the given conditions.

*This data sheet expires when an update is issued. The manufacturer reserves the right to make subsequent changes and additions.
 Last updated: February 2022.*

THE OWNER OF THE PATENT AND THE MANUFACTURER:

Advanced Materials-JTJ, s.r.o., Kamenné Žehrovice č.p. 23, 273 01, Czech Republic, www.amjtj.com

DISTRIBUTOR:

FN-NANO s.r.o. , Kamenné Žehrovice č.p. 23, 273 01, Czech Republic, www.fn-nano.com

CZECH INVENTION - PROTECTED BY PATENT AND TRADEMARK FN NANO® - VERIFIED BY MORE THAN TEN YEARS OF EXPERIENCE

^[1] The guarantee is valid only if the specified application procedure is followed by a professional certified company

^[2] Technical data sheet can be downloaded in the section FN NANO® Technology/Documents - technical data sheets www.fn-nano.com

